



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

DEVAL L. PATRICK  
Governor

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Secretary

KENNETH L. KIMMELL  
Commissioner

October 30, 2013

Mr. John Duclos  
Duclos Corporation  
1 Riverside Drive  
Somerset, MA 02725

**RE: Somerset**  
Transmittal No.: X252622  
Application No.: SE-12-035  
Class: OP  
FMF No.: 393139  
**ADMINISTRATIVE AMENDMENT TO  
AIR QUALITY PLAN APPROVAL**

Dear Mr. Duclos:

Pursuant to 310 CMR 7.02(13), MassDEP administratively amends Application Approval No. SE-12-035, dated October 11, 2013, to correct typographical errors contained in Table 2.

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Waste Prevention, has reviewed your Limited Plan Application ("Application") listed above. This Application concerns the proposed removal and application of marine coatings at your Gladding-Hearn shipbuilding and ship repair facility located at 1 Riverside Avenue in Somerset, Massachusetts ("Facility").

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control," regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

## **1. DESCRIPTION OF FACILITY AND APPLICATION**

The Permittee currently builds and repairs sea going commercial vessels at the Facility. The Permittee has requested approval to remove and apply marine coatings at the Facility, and establish federally enforceable limits on the potential to emit.

The Facility is located on approximately 9 acres of waterfront land, and includes 4 buildings with 9 assembly bays and a marine railway which comes up from the river. Most boats are built inside; occasionally boats are repaired outside. Abrasive blasting and painting may take place inside or outside the buildings.

Potential air emissions from Facility's vessel building and repair activities include: Volatile Organic Compounds (VOCs) and Hazardous Air Pollutants (HAPs) from coating application and clean-up solutions, Particulate Matter (PM), Particulate Matter less than or equal to 10 microns in diameter (PM<sub>10</sub>), and Particulate Matter less than or equal to 2.5 microns in diameter (PM<sub>2.5</sub>), i.e., particles of grit and/or paint from abrasive blasting, as well as paint overspray.

Paint application is accomplished with spray guns, brushes, and rollers. Abrasive blasting and/or spray-painting shall be completed behind extended barrier curtains in order to capture particles of grit/paint from abrasive blasting and paint particulates from overspray. When repairing boats outside, abrasive blasting is done behind barrier curtains on the side and bottom to capture recyclable grit material and painting is done by brush and roller only.

The United States Environmental Protection Agency (USEPA) has determined that the Permittee is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Shipbuilding and Ship Repair (Surface Coating) under Title 40 of the Code of Federal Regulations (CFR) Part 63, Subpart II.

The Permittee applies the coatings "as received" from the manufacturer, and demonstrates Best Available Control Technology (BACT) consistent with the material standard contained in the NESHAP, and as described in 310 CMR 7.25(11).

The Permittee's customers specify the paints to be used on the boats, and any unused paint is returned to the customer.

The Permittee employs an Iwata Model LPH 200-P HVLP spray gun, and a Graco Model 288420 HVLP spray gun. The Application indicates a Safety Kleen washer for paint spray guns and equipment parts in use at the Facility. The abrasive blasting and paint spraying is confined to the lower portions of the vessels, and the areas that these operations take place are surrounded by barrier curtains.

BACT at the Facility includes the use of marine coatings with VOC limits, the use of high volume low pressure (HVLV) paint sprayers, and the use of barrier curtains to capture particles of grit/paint from abrasive blasting and paint particulates from overspray.

## **2. EMISSION UNIT (EU) IDENTIFICATION**

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

<b>Table 1</b>			
<b>EU#</b>	<b>Description</b>	<b>Design Capacity</b>	<b>Pollution Control Device (PCD)</b>
1	High Pressure Low Volume Paint Spray Gun	n/a	Extended Barrier Curtains
2	High Pressure Low Volume Paint Spray Gun	n/a	Extended Barrier Curtains
3	Sponge Jet Abrasive Blasting System, using Sponge Jet abrasive media	n/a	Extended Barrier Curtains

**Table 1 Key:**

EU# = Emission Unit Number

PCD = Pollution Control Device

n/a = not applicable

## **3. APPLICABLE REQUIREMENTS**

### **A. OPERATIONAL, PRODUCTION and EMISSION LIMITS**

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2:

Table 2							
EU #	Operational / Production Limit			Air Contam -inant	Emission Limit		
1 & 2 <sup>4</sup>	1. Limit material usage such that PM / PM <sub>10</sub> /PM <sub>2,5</sub> emissions do not exceed the emissions limits listed herein. <sup>1</sup>			PM / PM <sub>10</sub> / PM <sub>2,5</sub>	1.5 TPY		
					0.25TPM		
	2. Limit material usage such that HAP (single) emissions do not exceed the emissions limits listed herein.			HAP (single)	2.0 TPY		
					0.33TPM		
	3. Limit material usage such that HAP (total) emissions do not exceed the emissions limits listed herein.			HAP (total)	3.0 TPY		
					0.5 TPM		
	4. Limit material usage such that VOC content and emissions do not exceed the emissions limits stated below and listed herein.			VOC <sup>3</sup>	6.0 TPY		
	Coating Category		VOC Limits <sup>a,b</sup>				
			Grams/liter coating <sup>e</sup>			Grams/liter solids <sup>c</sup> T ≥ 4.5 degrees C	Grams/liter solids <sup>c,d</sup> T < 4.5 degrees C
	General Use	340	571			728	1.0 TPM
	Specialty:						
	Air Flask	340	571			728	
	Antenna	530	1439				
	Antifoulant	400	765			971	
	Heat Resistant	420	841			1069	
	High-gloss	420	841			1069	
	High-temperature	500	1237			1597	
	Inorganic Zinc High-build	340	571			728	
	Military Exterior	340	571			728	
	Mist	610	2235				
	Navigational Aids	550	1597				
	Nonskid	340	571			728	
	Nuclear	420	841			1069	
	Organic Zinc	360	630			802	
	Pretreatment Wash Primer	780	11095				
	Repair and Maintenance of Thermoplastics	550	1597				
	Rubber Camouflage	340	571			728	
Sealant for Thermal Spray Aluminum	610	2235					
Special Marking	490	1178					
Speciality Interior	340	571	728				
Tack Coat	610	2235					
Undersea Weapons Systems	340	571	728				
Weld-through Precon. Primer	650	2885					

Table 2			
EU #	Operational / Production Limit	Air Contam -inant	Emission Limit
	a. The limits are expressed in two sets of equivalent units. Either grams per liter (g/L) or pounds per gallon (lb/gal), may be used to demonstrate compliance. See 40 CFR 63.785(c) b. To convert from g/L to lb/gal, multiply by (3.785 L/gal) (1/453.6 lb/g) or 1/120. For compliance purposes, metric units define the standards. VOC does include exempt compounds listed as HAP. c. VOC limits expressed in units of mass of VOC per volume of solids were derived from the VOC limits expressed in units of mass of VOC per volume of coating assuming the coatings contain no water or exempt compounds and that the volumes of all components within a coating are additive. VOC does include exempt compounds listed as HAP. d. These limits apply during cold-weather time periods (i.e. temperatures below 4.5 Degrees Centigrade). Cold-weather allowances are not given to coatings in categories that permit less than 40 percent solids (nonvolatiles) content by volume. Such coatings are subject to the same limits regardless of weather conditions. e. Minus water and exempt compounds.		
3	5. Limit material usage such that PM / PM <sub>10</sub> / PM <sub>2.5</sub> emissions do not exceed the emissions limits listed herein. <sup>2</sup>	PM / PM <sub>10</sub> / PM <sub>2.5</sub>	1.5 TPY 0.8 TPM

**Table 2 Key:**

EU# = Emission Unit Number

PM = Total Particulate Matter

PM<sub>10</sub> = Particulate Matter less than or equal to 10 microns in diameter

PM<sub>2.5</sub> = Particulate Matter less than or equal to 2.5 microns in diameter

VOC = Volatile Organic Compounds

HAP (single) = maximum single Hazardous Air Pollutant

HAP (total) = total Hazardous Air Pollutants

TPM = tons per month

TPY = tons per consecutive 12-month period

C = Centigrade

T = Temperature

≥ = greater than or equal to

< = less than

**Notes:**

1. Includes particulate emissions from spray painting operations, conducted with extended barrier curtains.

2. Includes particulate matter emissions from Sponge Jet abrasive blasting operations, conducted only within extended barrier curtains, expected to reduce the AP42, Fifth Edition, Volume 1, Chapter 13: Miscellaneous Source, Section 13.2.6 Abrasive Blasting emission factor by 95% to 4.55 pounds of PM per 1000 pounds of abrasive material used.

3. Including HAP (total).

4. Includes coatings and paints applied with spray guns, brushes, and rollers.

**B. COMPLIANCE DEMONSTRATION**

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5:

Table 3	
EU#	Monitoring and Testing Requirements
1, 2,  & 3	1. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	2. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13

**Table 3 Key:**

EU# = Emission Unit Number

Table 4	
EU#	Record Keeping Requirements
1, 2,  & 3	1. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Detailed daily records shall be kept for EU#1 and EU#2. Records shall also list: actual amount of all VOC-, HAP-, and PM-containing materials used per month and 12-month rolling period (the total of the current month's emissions plus the emissions from the 11 months preceding the current month). These records shall be compiled no later than the 15 <sup>th</sup> day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at <a href="http://www.mass.gov/dep/air/approvals/aqforms.htm#report">http://www.mass.gov/dep/air/approvals/aqforms.htm#report</a> .
	2. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	3. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) and PCD(s) approved herein on-site.
	4. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	5. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s) and PCD(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	6. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.

Table 4	
EU#	Record Keeping Requirements
	7. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	8. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

**Table 4 Key:**

EU# = Emission Unit Number

PCD = Pollution Control Device

SOMP = Standard Operating and Maintenance Procedure

USEPA = United States Environmental Protection Agency

Table 5	
EU#	Reporting Requirements
1, 2, & 3	1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	2. The Permittee shall notify the Southeast Regional Office of MassDEP, BWP Compliance and Enforcement (C/E) Chief by telephone (508) 946-2878, email <a href="mailto:sero.air@state.ma.us">sero.air@state.ma.us</a> or fax (508) 946-2865 or (508) 947-6557 as soon as possible, but no later than one (1) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to C/E Chief at MassDEP within three (3) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	3. The Permittee shall report annually to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.
	4. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30-days from MassDEP's request.
	5. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.
	6. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.

**Table 5 Key:**

EU# = Emission Unit Number

#### 4. **SPECIAL TERMS AND CONDITIONS**

- A. The Permittee is subject to and shall comply with the Special Terms and Conditions as contained in Table 6:

<b>Table 6</b>	
<b>EU#</b>	<b>Special Terms and Conditions</b>
1, 2, & 3	1. The Permittee shall install, operate and maintain a barrier curtain whenever abrasive blasting or paint spraying operations are conducted, such that particulate emissions are minimized. If any upset condition occurs which prevents the Permittee from operating the barrier curtain properly, the Permittee shall discontinue abrasive blasting and/or paint spraying operations until the barrier curtain is repaired and operating properly.
1 & 2	2. The Permittee shall only conduct paint spray operations inside of buildings.
	3. The Permittee shall conduct all handling and transferring operations involving VOC- and/or HAP-containing coatings, thinners and solvents in a way that minimizes spills and releases of VOCs and/or HAPs.
	4. The Permittee shall ensure the containers of VOC- and/or HAP-containing coatings, thinner and solvents are in good condition and do not leak, and shall remain closed, except to add or remove material from them.
Facility-wide	5. The Facility is subject to 40 CFR 63, Subpart II, NESHAPs for Shipbuilding and Ship Repair (Surface Coating). As of this date, MassDEP has accepted delegation of authority for 40 CFR 63 Subpart II for Operating Permit (310 CMR Appendix C) sources. Within one year from the date of this Air Quality Plan Approval issuance, the Permittee shall submit an Operating Permit application that reflects this Approval, 40 CFR 63 Subpart II, and any other requirements that apply to the Facility. Mr. Mark Poudrier (508-946-2783) of this office may be contacted for additional guidance on this matter.

**Table 6 Key:**

EU# = Emission Unit Number

NESHAPs = National Emission Standards for Hazardous Air Pollutants

CFR = Code of Federal Regulations

VOC = Volatile Organic Compounds

HAP = Hazardous Air Pollutants

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not limited to rain protection devices known as “shanty caps” and “egg beaters.”



- C. The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7, for the Emission Units that are regulated by this Plan Approval:

Table 7				
EU#	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)
n/a	n/a	n/a	n/a	n/a

**Table 7 Key:**

EU# = Emission Unit Number

°F = Degree Fahrenheit

n/a = not applicable

## 5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.

- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.
- K. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

## **6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT**

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

## **7. APPEAL PROCESS**

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Dan Kamieniecki by telephone at 508-946-2717, or in writing at the letterhead address.

This final document copy is being provided to you electronically by the  
Department of Environmental Protection. A signed copy of this document  
is on file at the DEP office listed on the letterhead.

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Thomas Cushing, Chief  
Permit Section  
Bureau of Waste Prevention

Enclosure

ecc: Somerset Board of Health/Dept of Health  
Somerset Fire Department  
MassDEP/Boston – Y. Tian  
MassDEP/SERO - M. Pinaud  
MassDEP/SERO – L. Black  
MassDEP/SERO – M. Poudrier  
MassDEP/SERO – G. Hunt  
USEPA Region I – S. Calder  
RELCO Engineering – R. Lavengood